

# US ARMY ALASKA



## *Integrated Training Area Management (ITAM) - A Case Study*



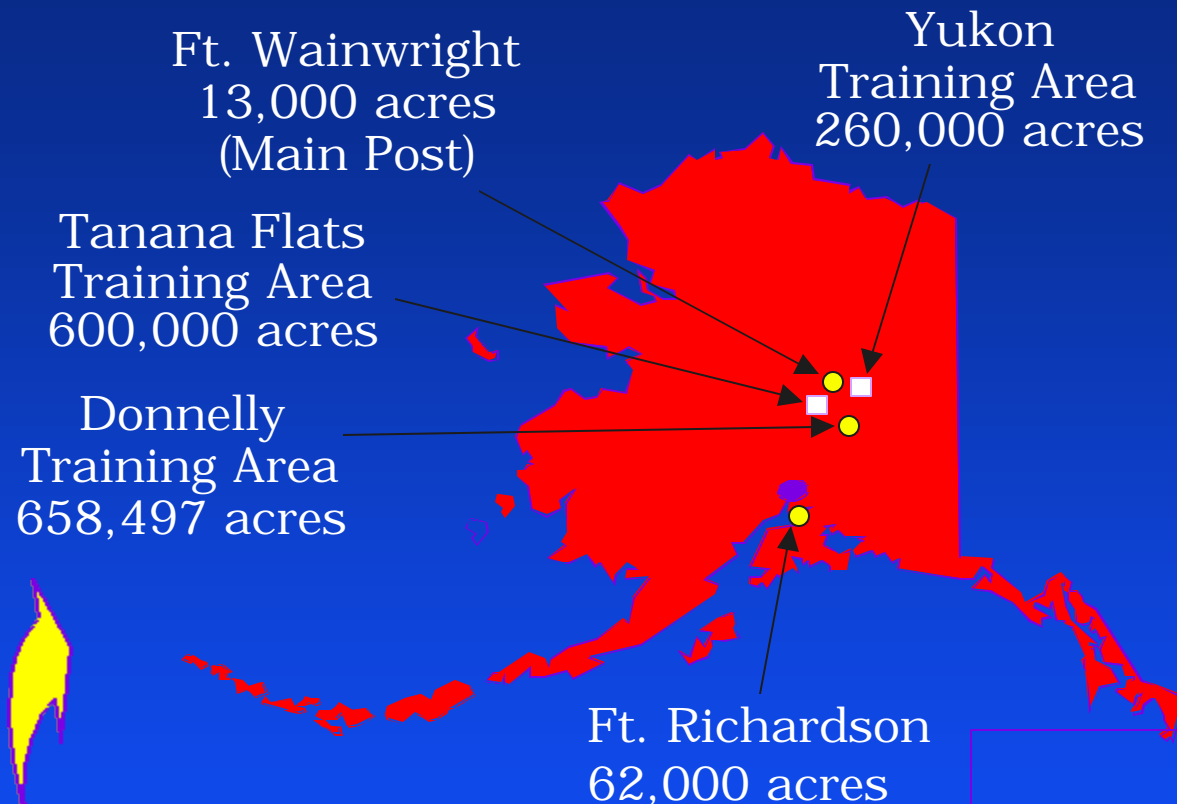


# *US Army Alaska ITAM - A Case Study*

- Range Management Challenges in Alaska
- Supporting Sustainable Range Management
- Summary

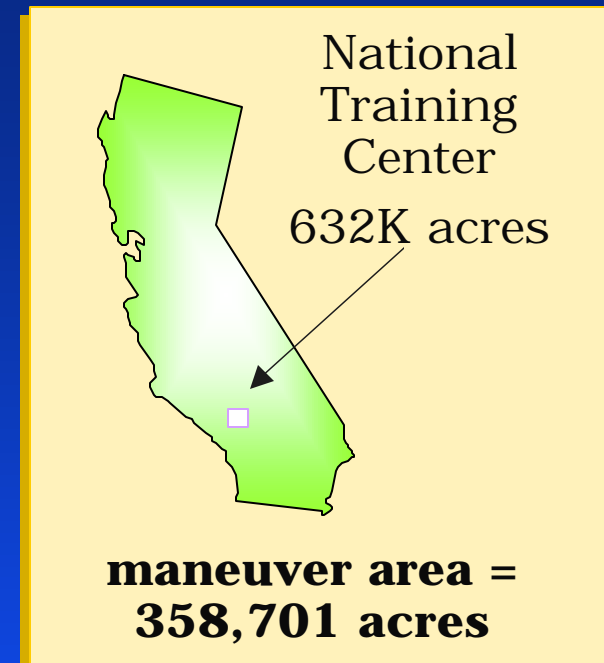


# Training Area Comparison



Alaska Total:  
1,594,000 acres  
(2,490 square miles)

**maneuver area =  
890,035 acres**



USARAK controls 10% of the total training land available [worldwide] to the Army.

# *Terrain*

- Terrain varies from mountainous to very flat
- Vegetation types range from open to heavily forested
- Soils are glacial outwash underlain by discontinuous permafrost

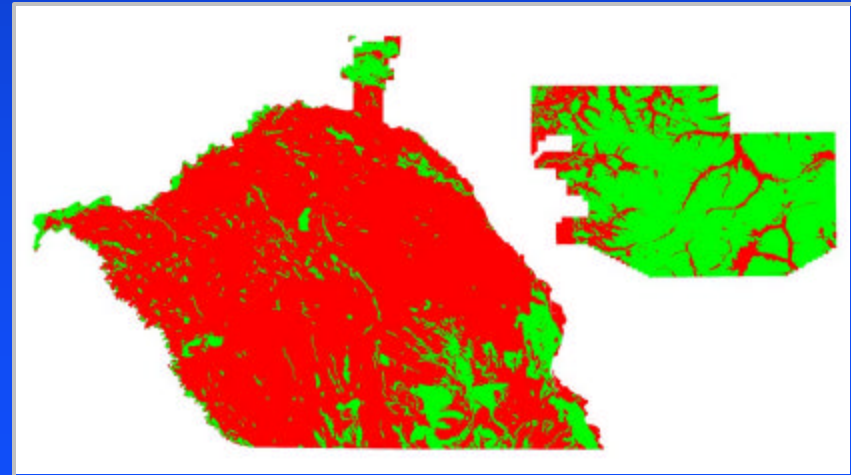


# *Wetlands*



Of the 1.594 million acres in USARAK, almost 1 million acres are wetlands. Significant issues attached to wetlands historically restricted training.

Wetland   
Upland 



# *ITAM Answers the Challenge*

USARAK Range Steering Committee mandated ITAM to be a “Cost-effective, measurable management tool to support sustainable range management by integrating existing programs, complying with laws, expanding training opportunities and sustaining training areas far into the future.”

## **ITAM Implementation Objectives:**

- **Implement ITAM Components**
- **Develop management process**
- **Develop regional organization**
- **Measure progress**

# *ITAM Components*

- **Training Requirements Integration (TRI)** actively coordinates range and natural resource issues
- **Environmental Awareness (EA)** educates soldiers to minimize training impacts
- **Land Rehabilitation and Maintenance (LRAM)** repairs and improves training lands
- **Land Condition - Trend Analysis (LCTA)** monitors land condition, predicts carrying capacity, and provides Geographic Information System (GIS) capability

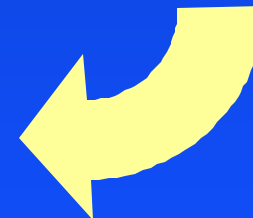


# *ITAM Management Process*

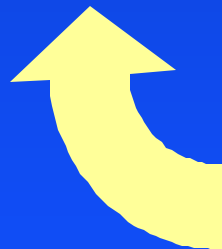
**TRI**  
Integration



**EA**  
Education



**LRAM**  
Repair



**LCTA**  
Monitoring  
& Mapping



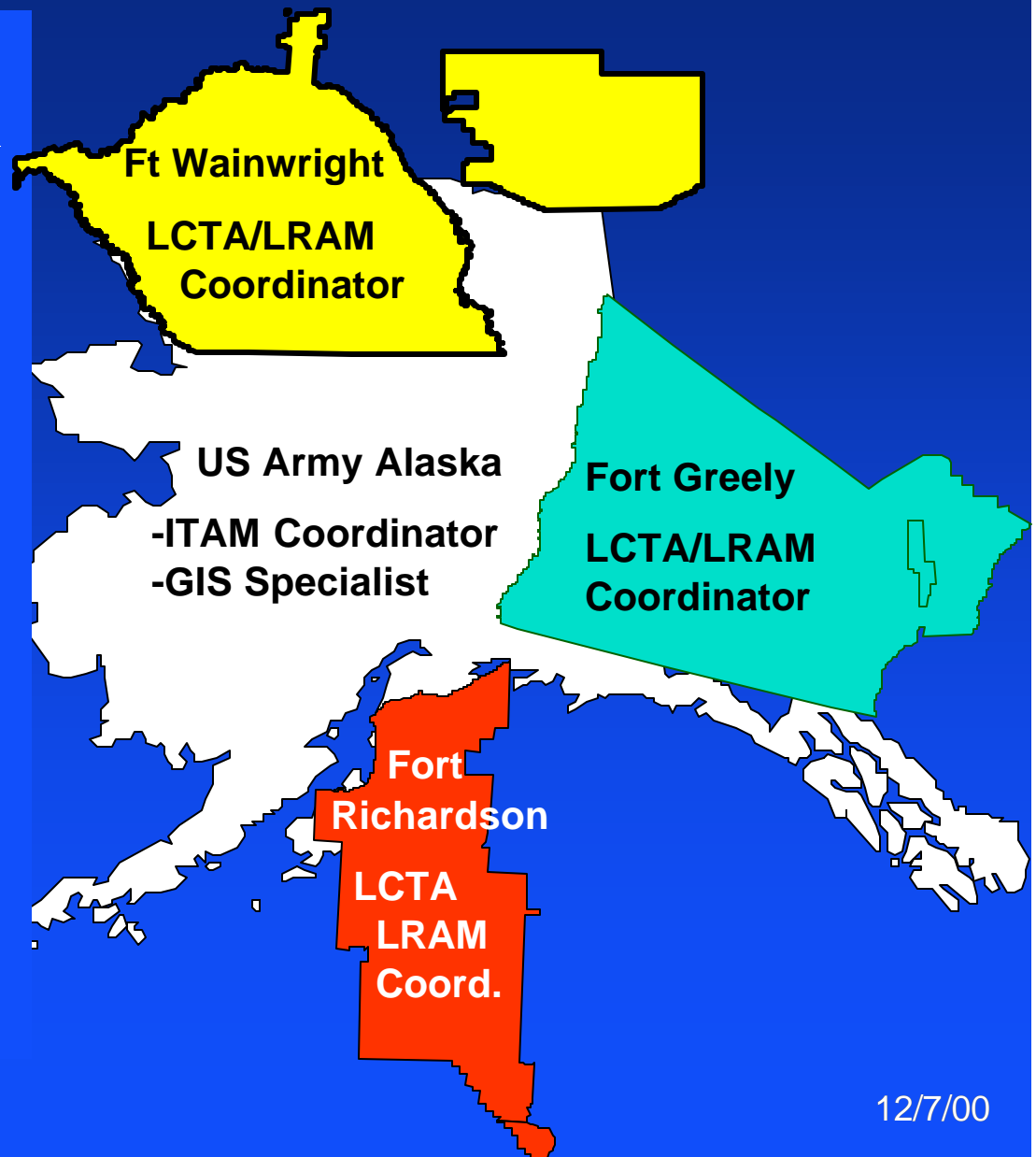
**Data/Decision  
Making Cycle**  
(Adaptive Management)

12/7/00



# *USARAK ITAM Regional Concept*

- Program Management Consolidated - 1 Workplan
- LCTA/LRAM/TRI Dispersed at Each Post
- GIS Consolidated LRAM/LCTA Coordinators, Range Control, National Guard and Air Force Utilize ArcView, connected to ArcInfo Database.
- Alaska Region LCTA Methods Used on USARAK and Guard Training Lands.



12/7/00

# ***ITAM Measures Of Effectiveness***

- **Provide doctrinally sound land parcels to support training and testing**
- **Show downward trend in notices of violations resulting from training and testing**
- **Sustain or increase land available (spatial or temporal) to support training and testing**
- **Maintain a balance of training load and ecological health of the land through the Army Training and Testing Area Carrying Capacity (ATTACC) methodology**

A photograph of a snowy landscape with several parachutes floating in the sky, suggesting a military or training exercise. The scene is captured in a slightly desaturated, vintage style. The ground is covered in snow with some sparse, low-lying vegetation. In the background, a line of trees is visible under a pale, overcast sky. Several parachutes are scattered across the sky, some appearing as bright white shapes and others as darker silhouettes. The overall mood is quiet and somewhat somber.

# *Supporting Sustainable Range Management*



# *Training Requirements Integration*

## *Supports Training By:*

- **Providing Direct Mission Support**
- **Providing Range Facility Inventory**
- **Providing Focus for Integrated Planning**
- **Reducing Impact of Regulatory Issues**



# ***TRI - Direct Mission Support***



**ITAM provides battalion and brigade level exercise support to minimize impacts and prevent Notices of Violation**



**ITAM supports training by coordinating with soldiers, units and range control to improve planning**

# *TRI - Direct Mission Support*

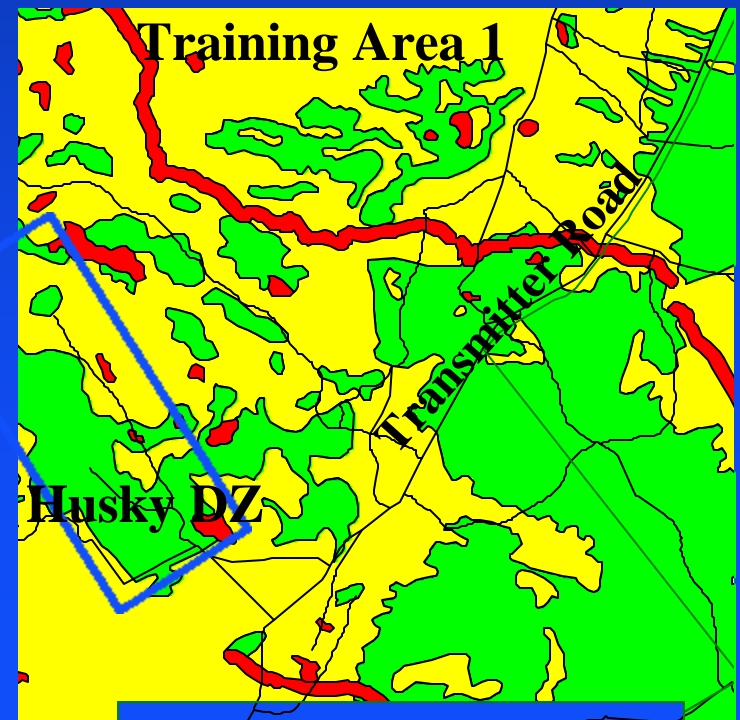
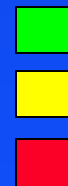


ITAM provides GIS  
user-interface computer  
mapping system at each  
range control office

ITAM provides large  
format Maps, Overlays,  
and Terrain Analysis to  
requestors

Environmental  
Limitations Overlay

No Limitations  
Minor  
Limitations  
Significant  
Limitations



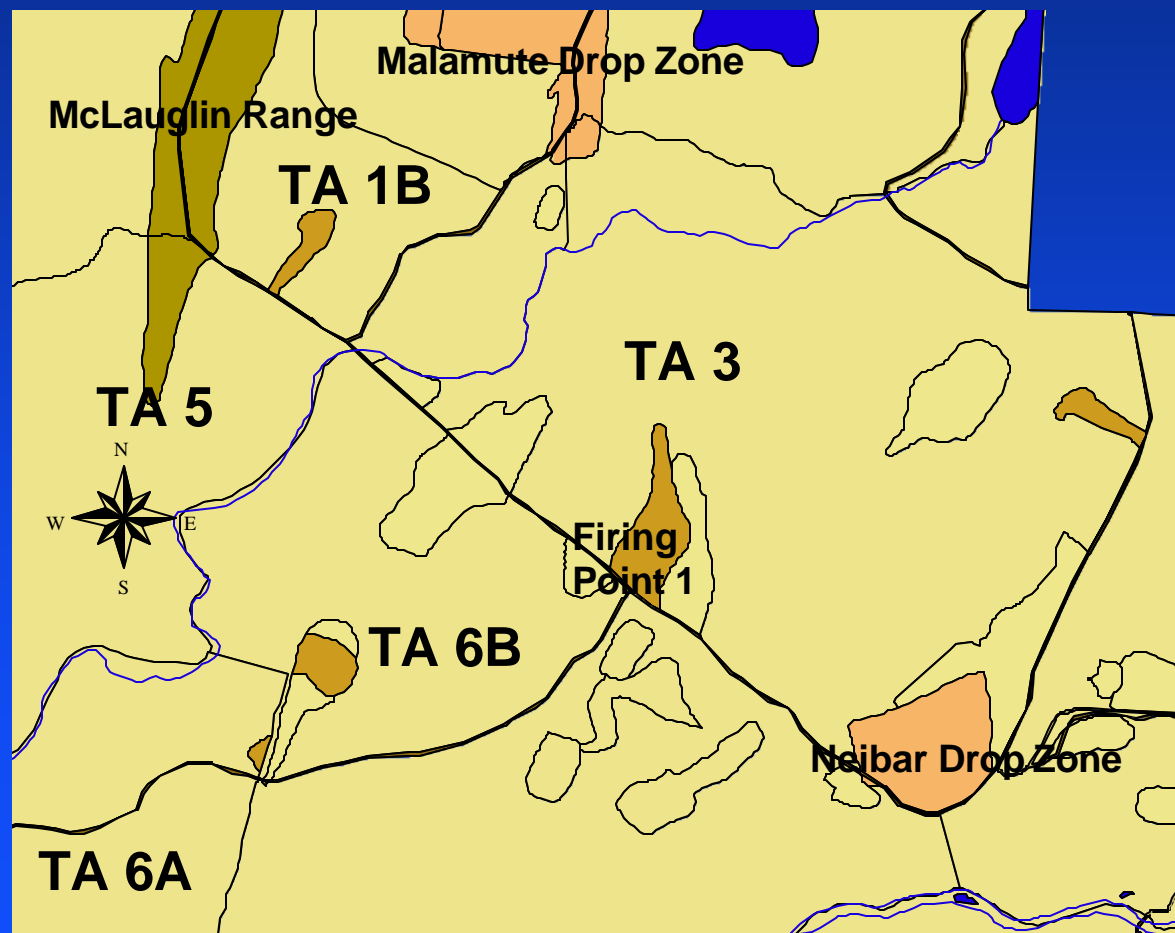


# *TRI - Range Facility Inventory*

## Active/Inactive (A/I) Range Inventory

- A/I Range Inventory is Standard Layer for RTLP Range Facilities
- A/I Range Inventory is Standard Layer for ITAM GIS User-Interface

Range	
Firing Point	
Drop Zone	
Training Area	



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# ***TRI - Integrated Planning***

- ITAM works with Conservation to use habitat management to benefit both wildlife species and training.
- ITAM works with Forestry to set up timber/firewood sales to reduce cost of training area redesign.



- ITAM fully integrated within INRMP; therefore all ITAM projects addressed by NEPA
- Land Withdrawal Renewal: ITAM data used to show responsible management; ITAM listed as mitigation

# ***TRI - Reducing Regulatory Impact***

## **5-Year Wetland Permit**

- **Allows recurring training activities on over half a million acres of low function wetlands, while protecting significant wetland habitat**
- **Allows USARAK to be self-regulating**



## **Smoke / Obscurant Permit**

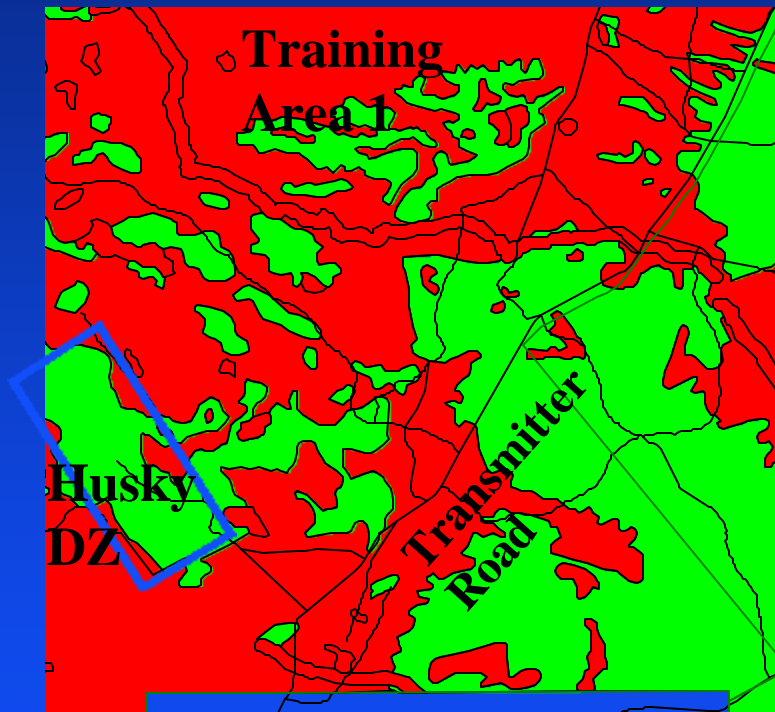
- **Allows oil-fog smoke generators**
- **Allows USARAK to be self-regulating**

**RFMSS and ITAM are the key to compliance with permits!**



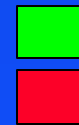
# *TRI - Reducing Regulatory Impact*

**Pre- Wetlands Permit**



**This is How Much Area  
Was Available Before the  
Wetlands Permit**

**Available  
Unavailable Due to  
Wetlands  
Restrictions**



**Post Wetlands Permit**



**This is How Much Area is  
Available Now That the  
Wetlands Permit is in Place**

# ***Environmental Awareness***

## ***Supports Training By:***

- **Reducing Impact on Training Lands Through Planning Input and Education**
- **Conducting EA Training During Pre-Command Briefing and Range Control Safety Briefings**



- **Providing Field Handbooks, Soldier's Field Pocket Guide, Environmental Awareness Video, Posters, All Available at Range Control**

# ***EA - Education***

- All soldiers participating in battalion/brigade level exercises and over 600 soldiers educated during range control safety briefings per year
- 50 Commanders/First Sergeants soldiers briefed at pre-command courses per year



- 1000 handbooks/ 2000 field cards given out to soldiers per year
- All soldiers required to carry field card or handbook during battalion/brigade level exercises and all vehicles required to carry spill kits and garbage bags



# ***Land Rehabilitation and Maintenance***

## ***Supports Training By:***



- **Redesigning, Repairing and Revegetating Training Land**
- **Improving Access to Training Areas**
- **Hardening Sites for Use During Breakup**

- **Increasing Available Training Acres**
- **Utilizing Troop Projects**



# ***LRAM - Redesigning, Repairing, and Revegetating Training Land***



**Malamute Drop Zone was redesigned, repaired, and  
revegetated, making the entire drop zone certified for  
airborne operations**



# ***LRAM - Improving Access***



**Before**



**After**





# *LRAM - Hardening Sites*



Before

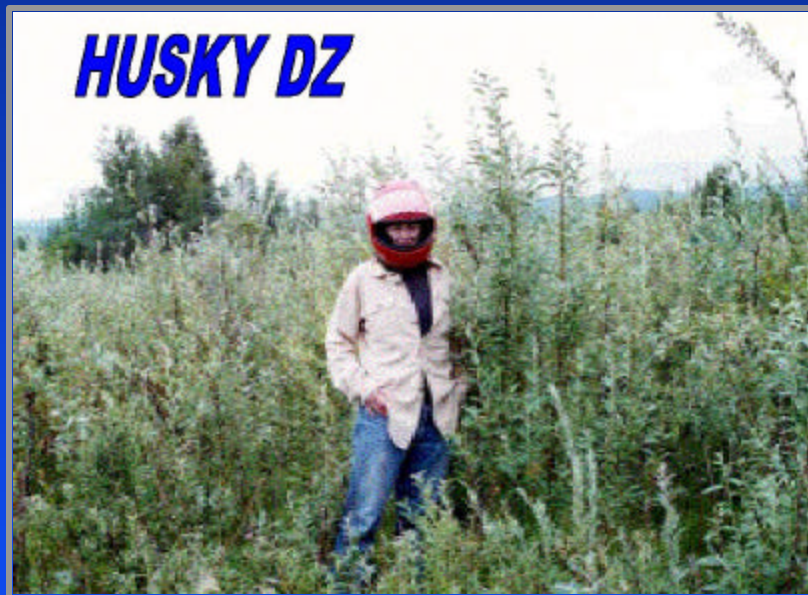


After



# ***LRAM - Increasing Available Training Acres***

Before



- Husky DZ Brush as High as 10 Feet
- Only a Small Area Available for Airborne Operations

After



- Hydro-axed Husky DZ 1999
- Returned over 200 acres back to primary military use



# *LRAM - Utilizing Troop Projects*



- Local engineer units used to complete LRAM projects
- ITAM gets work done cost-effectively, engineer units benefit from training





# *Land Condition - Trend Analysis*

## *Supports Training By:*

- **Monitoring Land Condition in the Field Where Soldiers Train**
- **Monitoring Impact of Training and Cycling Data Back into Planning and Decision Making**



- **Identifying and Recommending LRAM Priorities**
- **Providing information that may affect force structure and stationing decisions at MACOM and DA levels**

# *LCTA - Monitoring Where Training Occurs*



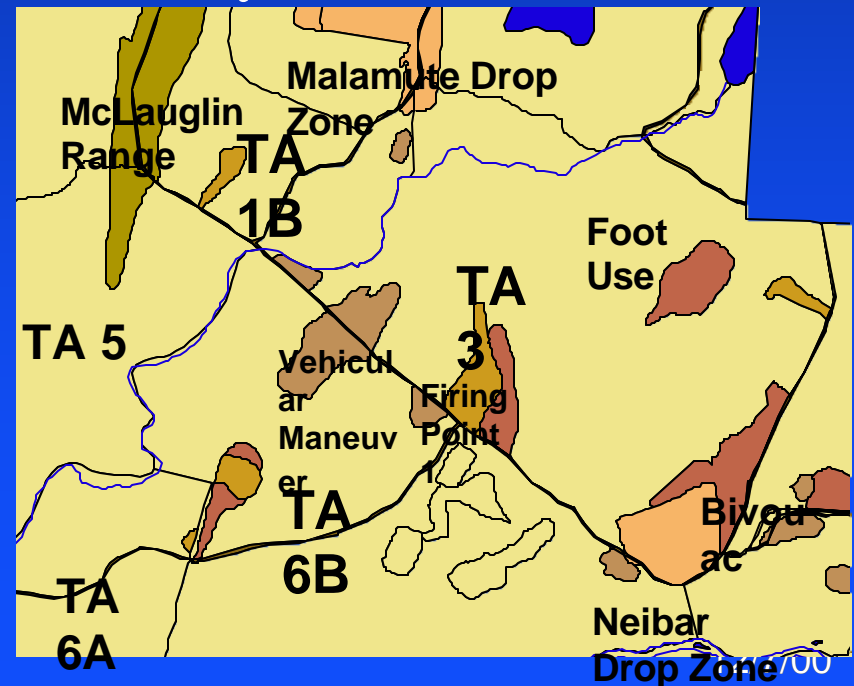
LCTA field crews go to the same places soldiers have been

A/I Range Inventory (Plus Bivouac and Maneuver) Becomes Standard Layer for LCTA Plot Allocation and ATTACC

Range  
Maneuver  
Bivouac  
Drop Zone  
Training Area



## **Military Land Use Patterns**

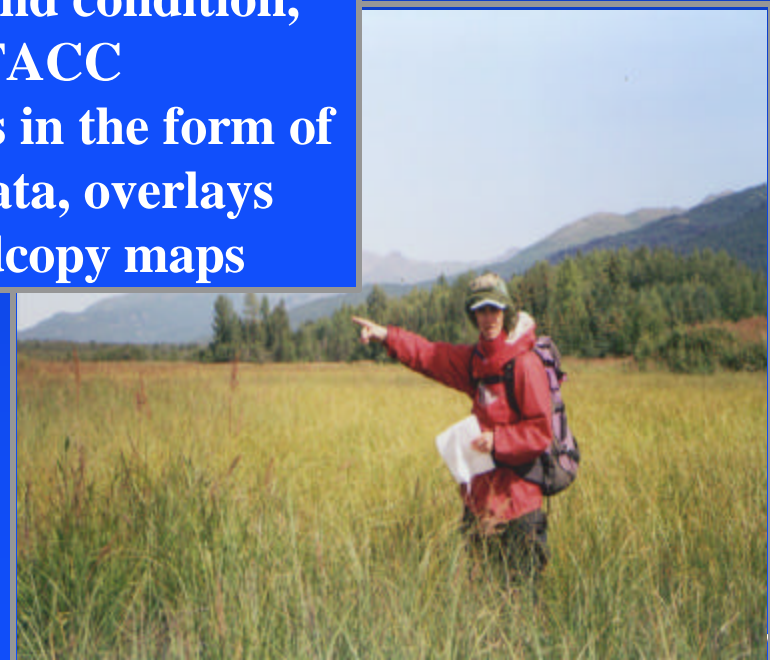




# *LCTA- Monitoring Impact of Training*



Annual LCTA Monitoring results in erosion status, land condition, and ATTACC estimates in the form of digital data, overlays and hardcopy maps

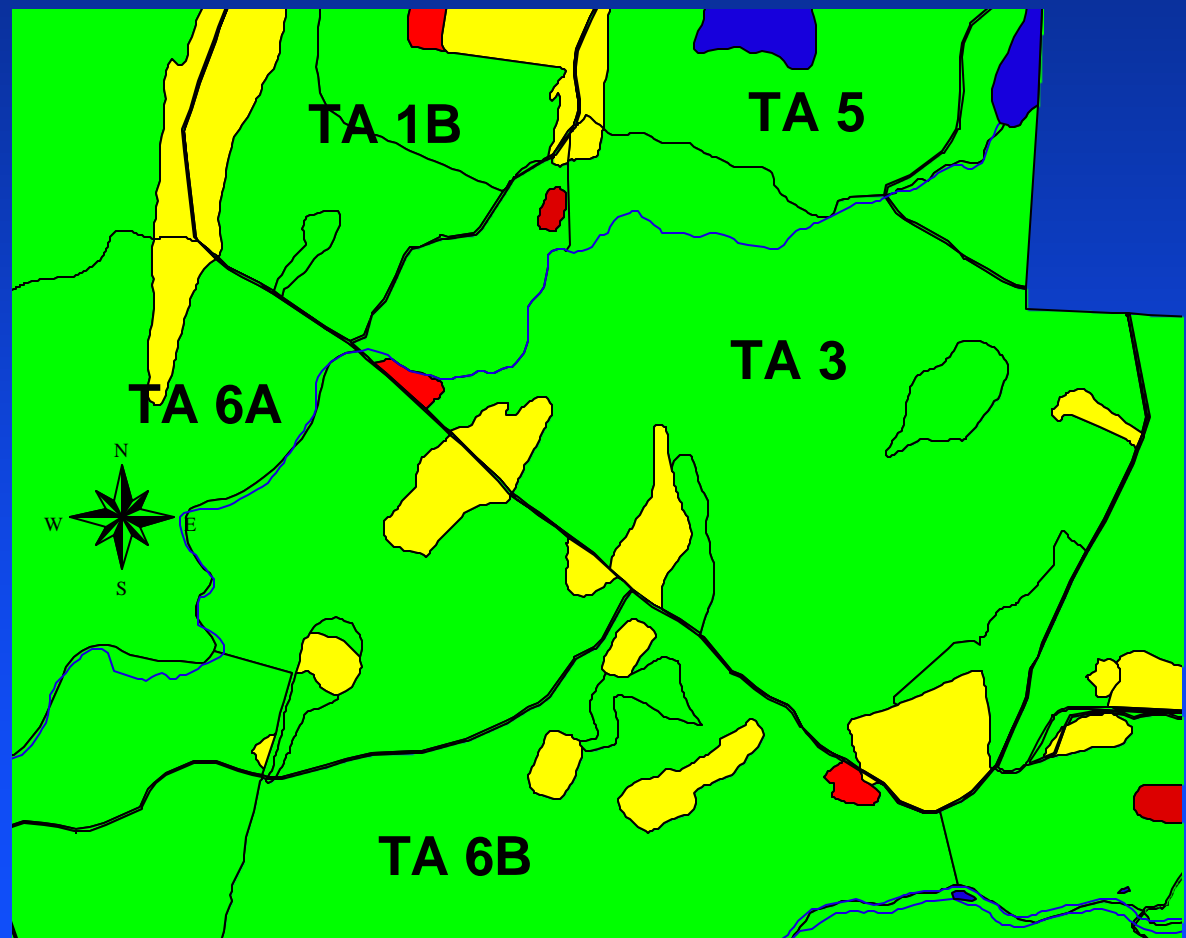




# *LCTA - Identifying LRAM Priorities*

- 380,700 potential LRAM acres in USARAK
- 13,509 actual LRAM acres impacted by training (areas outlined in black)
- 1760 badly degraded LRAM acres needing repair (red)

Land Condition

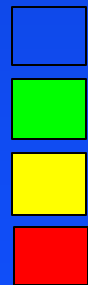


Evidence of Impacts

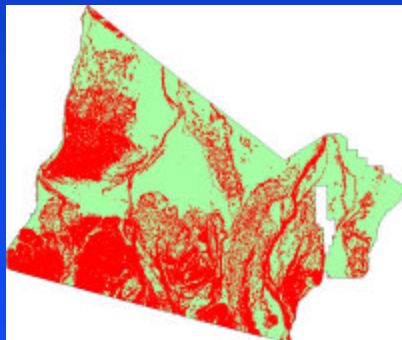
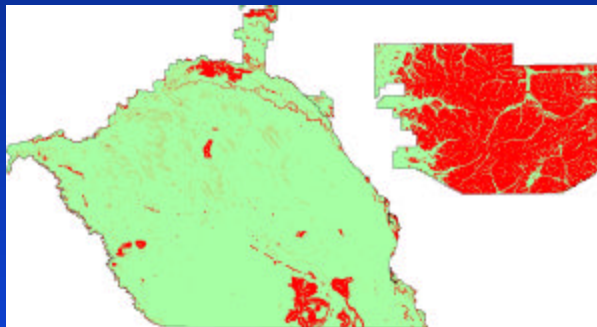
Good Condition

Degraded

Badly Degraded

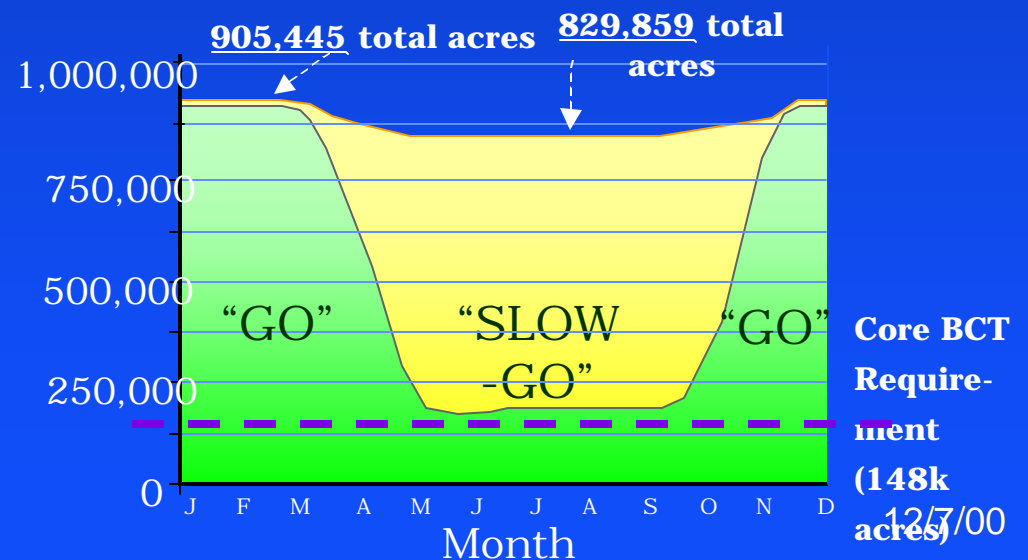


# *LCTA - Providing Information that May Affect Stationing*



LCTA provides trafficability estimates for current and potential transformed units

Maneuverable acres





# *Summary*





# *Measures of Effectiveness*

- **Sustain or increase land available (spatial or temporal) to support training and testing**
  - Obtained a five-year wetland permit that eliminates wetland restrictions to maneuver training and increases available usable training space by 543,000 acres in summer, 669,000 acres in winter
  - Increased training area/range availability by 6 weeks per year at 23 sites
- **Show downward trend in notices of violations resulting from training and testing**
  - No maneuver training related NOV's since 1996

# *Measures of Effectiveness*

- **Provide doctrinally sound land parcels to support training and testing**
  - Reconfigured / hardened 120 acres of bivouacs
  - Returned over 350 acres of drop zones / landing zones to original use
  - Repaired over 400 acres of degraded training land
- **Maintain a balance of training load and ecological health of the land through the Army Training and Testing Area Carrying Capacity (ATTACC) methodology**
  - Maintained excellent land condition on 1,536,000 acres while enabling USARAK to meet all mission requirements

# ***ITAM Cost Benefit Analysis***

**ITAM results in an average annual cost avoidance of 500K to 2M (COE Section 404 wetlands violations, litigation)**



**ITAM results in an average annual cost savings of 700K to 1.5M (range, road, and vehicular maintenance, lost time accidents and wasted soldier time waiting for unavailable ranges)**

**Funding ITAM results in up to a 3:1 return on investment for USARAK!**



# *Where Next?*

- **Integrate Beyond Range and Environmental**
- **Help prepare the sustainable range plan**



- **Incorporate ICUZ, NEPA, and Section 106 into planning process**
- **Impact area management**

# ***Conclusions***

- **ITAM helped remove wetlands restrictions on training, increasing the amount of available maneuver space to over 1.2 million acres, while protecting significant wetlands habitat**
- **Funding ITAM results in up to a 3:1 return on investment**
- **ITAM vital part of USARAK training readiness**
- **ITAM key to USARAK sustainable range management**

# US ARMY ALASKA



## *Integrated Training Area Management (ITAM) - A Case Study*



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